a). a synthetic, poorly crystalline apatitic (PCA) calcium phosphate having an x-ray diffraction pattern similar to naturally occurring bone; and

b). a resorption modulator, wherein the modulator controls the resorption rate of the PCA calcium phosphate.

109. The implant composition of claim 108 wherein the modulator is chosen to increase the resorption rate of the PCA calcium phosphate.

110. The implant composition of claim 109 wherein the modulator is selected from the group consisting of a leachable compound and a biodegradable compound.

111. The implant composition of claim 109 wherein the modulator is an agent which is characterized by directly or indirectly stimulating osteoclast activity.

112. The implant composition of claim 111 wherein the agent is selected from the group consisting of interleukin-1, colony stimulating factors, macrophage-colony stimulating factors, transforming growth factor α, tumor necrosis factor, interleukin-6, interleukin-11, interleukin-3, para-thyroid hormone, vitamin D metabolites, prostaglandins, and oxygen free radicals.

113. The implant composition of claim 108 wherein the modulator is chosen to decrease the resorption rate of the PCA calcium phosphate.

114. The implant composition of claim 113 wherein the modulator is an agent which is characterized by directly or indirectly inhibiting osteoclast activity.

115. The implant composition of claim 114 wherein the agent is selected from the group consisting of transforming growth factor β, γ-interferon, interleukin-4, nitric oxide, calcitonin, and prostaglandins.

116. The implant composition of claim 113 wherein the modulator comprises a crystalline calcium phosphate.

117. The implant composition of claim 108 further comprising at least one bone-resorbing cell.

118. The implant composition of claim 117 wherein the at least one bone-resorbing cell is selected from the group consisting of osteoclasts, and macrophages,.

119. The implant composition of claim 108 wherein the PCA calcium phosphate is made from a process comprising:

a). exposing an amorphous calcium phosphate (ACP) to a promoter in the presence of a limited amount of an aqueous solution so that a hydrated precursor having a paste or putty consistency is formed; and

b). allowing the hydrated precursor to harden in association with an endothermic reaction.

120. The implant composition of claim 119 wherein the promoter is selected from the group consisting of calcium metaphosphate, dicalcium phosphate dihydrate, heptacalcium decaphosphate, tricalcium phosphate, calcium pyrophosphate dihydrate, PCA calcium phosphate, calcium pyrophosphate, octacalcium phosphate, and amorphous calcium phosphate.

121. The implant composition of claim 119 wherein the promoter is dicalcium phosphate dihydrate (DCPD).

122. The implant composition of claim 108 wherein the PCA calcium phosphate is made from a process comprising:

exposing an amorphous calcium phosphate (ACP) to a promoter in the presence of a limited amount of an aqueous solution so that a hydrated precursor having paste or putty consistency is formed, wherein the hydrated precursor remains a paste or putty for at least 30 minutes at 22°C and hardens within about 10-60 minutes at 37°C.

123. The implant composition of claim 108 wherein the PCA calcium phosphate is characterized in that when placed in a rat intramuscular site, resorption of at least 1 g of the PCA material is at least 80% resorbed within one year.

124. The implant composition of claim 108 wherein the PCA calcium phosphate has an x-ray diffraction pattern comprising broad peaks without sharp shoulders at 2θ values of 26°, 28.5°, 32° and 33°.

125. The implant composition of claim 108 further comprising a biologically active agent.

126. The implant composition of claim 125 wherein the biologically active agent is selected from the group consisting of proteins, polypeptides, polynucleotides, nucleoproteins, polysaccharides, glycoproteins, and lipoproteins.

127. The implant composition of claim 125 wherein the biologically active agent is selected from the group consisting of anti-AIDS substances, anti-cancer substances, antibiotics, ACE inhibitors, adrenergic antagonists, antacids, immunosuppressants, anti-viral substances, enzyme inhibitors, neurotoxins, opioids, hypnotics, antihistamines, lubricants, tranquilizers, anti-convulsants, muscle relaxants, anti-Parkinson substances, anti-spasmodics, muscle contractants, anti-diarrheals, anti-emetics, laxatives, diuretics, miotics, anti-cholinergics, anti-glaucoma compounds, anti-parasite compounds, anti-protozoal compounds, anti-hypertensives, analgesics, anti-pyretics, anti-inflammatory agents, anti-histamines, anti-tussive agents, anti-vertigo, antinertigic, anti-motion sickness medications, local anesthetics, ophthalmics, prostaglandins, anti-depressants, anti-psychotic substances, anti-emetics, imaging agents, specific targeting agents, trophic factors, growth factors, neurotransmitters, cell response modifiers, and vaccines.

128. A bioresorbable implant composition, comprising;

a calcium phosphate; and

an agent which directly or indirectly stimulates osteoclast activity, wherein the agent recognizes the calcium phosphate as a substrate to thereby modulate the resorption of the calcium phosphate at an implant site.

129. A method of modulating resorption of a bioceramic composition, comprising:

contacting a bioceramic composition with an agent which directly or indirectly stimulates osteoclast activity, whereby the agent recognizes the bioceramic composition as a substrate thereby modulating the resorption the bioceramic at an implant site.